September 26, 1944

CONFIDENTIAL MEMORANDUM

TO: Educators who have indicated their intentions of appearing as witnesses at the forthcoming FCC allocations hearings

FROM: R. R. Lowdermilk

PURPOSE OF THIS COMMUNICATION:

A number of inquiries have been received by this Office, from those who intend to appear as witnesses, requesting information or advice on such matters as how to organize testimony for presentation, what kinds of exhibits to prepare, and the like. Since the very limited amount of time between now and the time we shall be called to appear, will not permit answering these inquiries individually, this memorandum has been prepared, for circulation ONLY to those whose names appear on the attached list of witnesses, in an attempt to provide the kinds of information and advice that have been requested.

It is expected that all of those to whom it is addressed will fully appreciate its confidential nature, and will carefully refrain from either quoting it as a source, or allowing any part of it to be published. I might add, further, that it is written purely as the advice of one individual, who has been closely associated with the particular problems which confront education at this time, to other individuals presumed to be interested in the same problem, and that, as such, it has positively no status as an "official pronouncement" of the U.S. Office of Education.

R. R. Lowdermilk

R.R. Lowdermilk

THE SPECIFIC PROBLEMS WHICH CONFRONT EDUCATIONAL FM BROADCASTING:

Wartime developments in various types of radio communications and industrial processes based on the use of radio-frequency energy have vastly increased the demand for operating space in the radio-frequency spectrum. Not only must operating space be found within the usable portion of the radio-frequency spectrum for new services, but some of the existing services have found that they will need additional frequencies or channels. Since the demand for frequencies greatly exceeds the supply, the Federal Communications Commission is holding a series of hearings, beginning on September 28, at which all requests for operating frequencies will be examined in the light of the total number of usable frequencies available, and in the light of the importance of each of the services.

One of the services which finds itself urgently in need of additional frequencies is Non-Commercial Educational FM (frequency modulation) Broadcasting. While only four city school systems and two universities had established FM broadcast stations before the war, information received by the Radio Service of the U.S. Office of Education indicates that several hundred school systems, colleges and universities, and state departments of education expect to construct educational FM broadcast stations, and that, in 31 different states, plans are being made, already, to provide educational FM program service to every school and school home, by coordinating the services of proposed state-owned stations and of stations that are being planned by individual school systems, colleges, and universities.

It is evident, then, that the five channels of the 42-to-43 megacycle band that was allocated, four years ago, for non-commercial educational broadcasting will not be enough to meet the demand that is to be anticipated within the next few years. From an analysis of educational FM planning activity in three heavily-populated regions, which was made by this Office about ten months ago, Commissioner Studebaker estimates that a band of 15 consecutive 200-kilocycle FM channels will be required in order to meet the needs already in sight, and that, even with 15 channels, judicious planning will be needed in order to fit enough stations into any given region embracing several adjoining states to insure program service to every school and school home!

In a letter, last January 1, to FCC Chairman, James Lawrence Fly, Commissioner Studebaker made a formal request that (1) 15 consecutive FM channels be allocated exclusively for non-commercial educational broadcasting, (2) that each of these channels be 200 kilocycles in width (the width required for the use of the Armstrong Wide-Swing System of Frequency Modulation currently used by the FM stations already in operation), and (3) that this band of 15 consecutive channels be assigned immediately adjacent to and continuous with the commercial FM band, so that school homes equipped with standard commercial AM-FM receiving-sets will be able to receive the school-station broadcasts. (He also requested that education be guaranteed access to whatever relay-transmission frequencies might be required for the linking of educational FM stations, and for access to television channels, if and when education might ever find it economically possible to do this type of broadcasting.)

Present indications are that we are likely to be challenged, at the hearings, on all three of these major requests. Hence, the primary emphasis of our testimony should probably be directed toward these three points.

First, in order to justify our claim that education must have a minimum of 15 consecutive channels, we must be able to show that a substantial number of schools, colleges and universities, and state departments of education ACTUALLY INTEND to establish educational FM stations as soon after the war as possible. It would probably strengthen our case, also, to be able to show that a substantial number of professional educational groups and organizations, not immediately concerned with constructing FM stations, ARE, nevertheless, genuinely interested in the creation of such educational program services, either from the standpoint of producing programs for broadcast over proposed educational FM stations, or from the standpoint of making sure that such program services are available for local use in schools or by adult listeners.

Second, we must be able to make a convincing case for education's need for FM channels 200 kilocycles in width. Otherwise, organized opposition to the proposed expansion of the total FM broadcast band may be able to exert enough pressure to effect a reduction of the present 200-kilocycle channel-width to half this width. According to top-ranking FM radio engineering authorities, if FM channel-width were reduced from 200 kilocycles to 100 kilocycles, FM broadcasting would lose the characteristics which make it uniquely different from standard AM broadcasting, namely:--(1) its wide range of audible frequencies, (2) its wide dynamic range, or range of intensity difference between loudest and softest passages, (3) its freedom from distortion, and (4) its complete freedom from static and background noise -- characteristics which account for FM's extreme naturalness of tone which gives the listener the illusion of being actually present at the point of program origin.

There is reason to believe that any action which might, in any way, tend to impair the tone quality and static-elimination characteristics of FM broadcasting would tend, inevitably, to reduce the value of FM as an educational medium. Music educators have found, in FM, an answer to the long-felt need for an instrumentality capable of faithfully re-creating the world's great music in all the beauty of its original rendition. There is also some research evidence to indicate that tone quality may be an important affective factor in determining the over-all effectiveness of school radio listening with respect to promoting worth-while interests and developing attitudes favorable to the support of democratic processes. Finally, of course, any teacher who has ever atempted to use radio for classroom listening (and who, in consequence, will have had opportunities to observe, first hand, the devastating effects of noisy reception on class-group attention), should be able fully to appreciate the value of the noise-free reception made possible by the use of the 200-kilocycle channel-width which present FM broadcasting employs.

In making our case for education's need for FM channels 200 kilocycles in width, perhaps it would be best for us to build our case entirely in terms of education's need for the tone fidelity and noise-elimination characteristics offered by the "Armstrong System of Wide-Swing Frequency Modulation," rather than attempt to make any technical defense of the 200-kilocycle channel width. If we can convincingly show that school people consider it important, from the standpoint of insuring maximum educational effectiveness of radio-program listening, that school broadcasts be of the highest possible tone quality and free from static and background noise of all kinds, this is all that will be necessary for us, since we can depend on the testimony of the FM engineering witnesses to establish the technical conditions necessary in order to provide these characteristics.

Third, we must be able to make a convincing case for the desirability of assigning education's 15 consecutive 200-kilocycle FM channels adjacent to and continuous with the commercial FM band, so that homes having standard AM-FM receiving-sets will be able to receive the school-station broadcasts. This argument rests, of course, on the assumptions, first, that educational FM broadcast stations will want to reach home listeners with adult-education programs and programs of a general informational nature not likely to be made available over commercial stations; second, that educational FM stations are likely to be used (to some extent, at least) to bring educational programs of a supplemental nature to student listeners during out-of-school hours; third, that these stations are likely to be used to bring to young adults, just out of school, types of educational programs calculated to expedite their transitional adjustments to adult social, occupational, and civic responsibilities of community living; and fourth, that one of the most important uses of the educational FM stations will be that of broadcasting programs designed (a) to explain the work and purposes of the schools to their respective communities, (b) to present actual examples of pupil performance and achievement, by way of demonstrating to parents what the schools are accomplishing, (c) to inform the public regarding the nature, methodology, and relative merits of new instructional techniques, systems of grading, administrative organization, and the like, (d) to promote critical analysis of the obligations of public education in relation to the preparing young people for effective participation, culturally and economically, in contemporary life, and (e) to enlist community support for educational policies.

It should not be difficult to find ample evidence to support the validity of these four assumptions. Programs of these general types have been broadcast, already, by school systems and colleges which are now operating their own FM stations. In addition, most of the state plans which have come to the attention of this Office indicate that program services of these kinds are intended. Hence, when testifying at the hearings, it would be well to explain, in some detail, what types of programs designed for out-of-school listening are intended (in addition, of course, to programs designed specifically for in-school listening).

In this connection, it might be well to point out, by way of caution, that any witness whose testimony indicates an interest in broadcasting only programs designed for in-school listening may possibly be challenged on the grounds that a school system does NOT actually need an FM station if it has no interest in reaching out-of-school listeners -- that, if it needs only to reach in-school listeners during school hours, it can do this more easily and more economically by simply constructing studios with recording facilities, and producing its educational programs in transcription form, to be played, as needed, either over school central sound systems, or over portable transcription players to individual classroom groups! It is perfectly true, of course, that any of the smaller school systems, not able to afford the cost of an FM broadcast station (or unable, because no channels happened to be available locally, to construct its own station), would be able, in this manner, to develop a valuable recorded-program service. In fact, it is not unlikely that

quite a few school systems which can not, for one reason or another, have their own stations, will ultimately develop local recorded-program services of this kind, to supplement the "live" educational broadcasts available from nearby school-owned FM stations, and even from commercial FM and standard-broadcast stations. Nevertheless, (and here, it seems, is the answer to this argument, should it be raised), even though an educational-station applicant may not be in a position, at the outset, to broadcast programs for out-of-school listeners, we cannot escape the fact that programs designed specifically for in-school listening ARE listened to (according to the reported experiences of school systems now operating FM stations, with reasonably-constant regularity) by the parents of the school children, and, in consequence, have rather significant public-relations value! (Actually, it seems probable that the great majority of educational-station applicants WILL plan to offer BOTH programs for in-school listening AND programs for out-of-school listening.)

SUGGESTIONS FOR ORGANIZING TESTIMONY FOR PRESENTATION:

There are four general points which the testimony of educational witnesses will need to establish conclusively, either on the basis of conclusions or inferences drawn from information now available, or on the basis of calculations made from generally-accepted facts (as in the case of showing how closely stations can be spaced without causing mutual interference), or on the basis of the considered opinions of accredited spokesmen for recognized groups, organizations, legal entities (such as boards of educations, state departments of education, etc.), and the like.

First, we need to show that a substantial number of school systems, colleges and universities, and state departments of education actually intend to establish educational FM broadcast stations as soon after the war as possible; that the types of program service that are being planned will have far-reaching educational, social, and cultural values; and that the present planning, by the respective groups and organizations, colleges and universities, city school systems, and state departments of education which the respective witnesses represent, contemplates service to both in-school and home listeners. We should make it clear, also, that there will be considerable number of school systems, colleges, and universities which will NOT be able to have FM stations of their own, BUT, nevertheless, WILL plan to install complete program-production facilities to be used in feeding locally-produced programs to nearby school-owned FM stations for broadcast on the air. Finally, we should emphasize the point that there will be a great many schools which intend neither to construct their own FM stations, nor to install production facilities, BUT ARE making definite plans to use the broadcasts of proposed school-owned FM stations to be located nearby.

Second, we need to show that it will be impossible, in any of the states represented by the witnesses scheduled to appear, to find room enough, within the five-channel band education now has, for a sufficient number of educational FM stations to provide program service to all the schools ans school homes; and that, in consequence of needs already in sight, it is imperative that education be allocated additional channels.

Office of Education witnesses will undertake to show the estimate of 15 consecutive 200-kilocycle FM channels as the absolute, irreducible minimum number of channels needed by public education was derived. Using the Atlantic coastal region from Massachusetts to Virginia as illustrative of the situation that will be found in several of the more-densly populated regions, we can show that a band of somewhere between twenty and thirty channels would be required (in this particular region) if every school system, college, and university that would like to have its own FM station were to be licensed to construct one! We can show, also, that it will be possible (by eliminating from con-sideration proposed school-owned stations which would duplicate the services of others in the same respective areas, by planning stations to be programmed by two or more school systems wherever possible, and by spacing station locations in such a way that the boundaries of their service areas would touch, but overlap as little as possible) to provide state-wide and region-wide service within this same area with a minimum of 15 continuous channels, BUT that complete coverage cannot be obtained with fewer than this number.

Witnesses appearing for the Ohio State Department of Education can show, from their state plan, that every single channel within a 15-channel educational FM band which can be assigned in that state without causing inter-station interference will be used. These witnesses can show, also, that, ideally, the State of Ohio should have about three times the number of stations shown on their state plan, since many of the school systems and colleges now planned to serve merely as program-producing centers for regional stations would be better served by having stations of their own. (Actually, the State of Ohio might be able to have a few more than the 18 stations it is now planning, but this would necessarily deprive substantial areas lying near the boundaries between it and the surrounding states of the opportunity to develop their own educational FM services.)

Witnesses for the State of Michigan (State Department of Education and the University of Michigan) can show that 15 consecutive channels is the very least they must have in order to provide for the four high-and medium-power "network-service" stations and the twenty or more fractional-kilowatt local school-system stations they are planning.

Witnesses for the State of Connecticut can show that the four stations needed there will require a total of four alternately-spaced channels, which, considering the fact that the "in-between" channels could not be used in that State, would actually represent a band seven channels wide. However, Connecticut's problem does not end there. One medium-power educational FM station is being planned for the State of Rhode Island; there is a reasonable certainty that at least two will eventually be constructed in the State of Massachusetts, within interference distance of Connecticut stations; New York City already has one educational FM station, and it is likely that there will soon be pressure for two additional ones (Columbia University and New York University); Floral Park, Long Island already has an application on file with the FCC for a station, and another station is being planned for a location at the approximate center of Long Island; and it is probable that still another New York educational FM station will be wanted, either at Pough-keepsie, or on the Palisades just west of that city! It is fairly obvious, then,

that the demand for educational FM channels in this area will be great enough to necessitate some compromises between states in order to provide for enough stations in the total area to insure service from at least one station to every school and school home. (Connecticut witnesses might point out, also, that a number of the school systems and colleges now being planned as production centers to serve orgional stations should, ideally, have their own transmitters.)

Witnesses for the State of Maryland can show a situation which is similar, in many respects to the situation in Connecticut. Maryland will require a minimum of five educational FM stations in order to provide service through the state. Since one channel assignment can be repeated in the State to serve two stations (one of them at Salisbury, and the other in western Maryland, shielded from the first by the Cacapon Range), only four channels will be required, BUT, in view of the fact that only alternate channels can be assigned, Maryland's needs will require a total band width equivalent to seven consecutive channels. As in the case of Connecticut, Maryland's needs cannot be considered apart from the requirements of neighboring states. Within normal interference range of Maryland's five stations, a total of ten other educational FM stations is already being planned -- two in West Virginia, four in Pennsylvania, two in NewJersey one in Delaware, and one in D. of C. In addition, there is reason to expect that still another educational FM station, to serve the Alexandria,--Arlington--Fairfax area, will be planned in the very near future. Thus, Maryland's five stations will have to considered in relation to what will amount, eventually, to at least a fifteen-station regional frequency-assignment pattern.

Testimony of the kinds indicated (from Office of Education witnesses, and from State Department of Education witnesses representing Ohio, Michigan, Connecticut, and Maryland) should be able to make a reasonably convincing case for Commissioner Studebaker's contention that education must have a minimum of at least 15 consecutive 200-kilocycle channels in in order to meet the needs already in sight.

(As a matter of personal opinion, I am inclined to believe that education will eventually need more channels than this, but hesitate to suggest trying to make a case for more than 15 now, lest our demands seem unreasonably high. I truly believe, however, that we can show a legitimate need for a minimum of 15 channels, in the light of the present status of station planning, and that present planning is definite enough to give reasonable assurance that a sufficient number of educational FM stations will be constructed within the next three or four years to utilize a 15-channel band to its full capacity. However, if any of the other educational witnesses have reason to believe that more than this number of channels will be needed within the next few years, they should consider themselves perfectly free to ask, in the course of their testimony, for the allocation of a greater number.)

Finally, in addition to the kinds of testimony already indicated to support the claim that more channels are needed by education, it would probably be desirable for each of the other witnesses appearing for education to include some statement in his testimony as to the minimum number

... of channels he believes education should be allocated. In some cases, it may be possible for witnesses to prepare exhibits to support their verbal presentations, or to present still other arguments than those that have been suggested to show the need for additional FM channels.

I..., we need to show that the channels allocated for educational FM broadcasting must be assigned immediately adjacent to and continuous with the commercial FM band. Since this point has already been covered in some detail on Page 4 of this memorandum, there is no need for additional elaboration as to the kind of testimony we will need to present.

Witnesses for State Departments of Education and for colleges and universities would do well to emphasize their interests in producing programs intended for out-of-school listeners. It would be well for them, also, to submit, as exhibits, samples of proposed program schedules, or descriptive outlines of some of their proposed program series and program services.

Witnesses for professionsl educational organizations should be in a position to explain types of program services for out-of-school listeners which would be desirable, and to emphasize the importance of having the educational channels located adjacent to the commercial FM band, in order to make sure that these broadcasts could be received on standard home AM-FM receiving-sets.

Witnesses representing city school systems should be able to explain, in some detail, the values of reaching school homes with school broadcasts, adult-education broadcasts, and school public-relations broadcasts. It would be well, also, for these witnesses to document their presentations liberally with actual illustrations from their past experiences. (certain materials of this kind might well be submitted in the form of exhibits.)

In addition, it would probably be desirable for all of the educational witness to affirm their belief in the importance of program services for out-of-school listeners, of the types listed on Page 4.

Fourth, we need to show that educators are substantially agreed that, in order to be maximally effective educationally, school FM broadcasting must be able to transmit the widest possible range of audible frequencies and the widest practicable range of intensity, with the minimum obtainable amount of distortion, AND that it must offer the same freedom from static and other background noises as our present system of FM transmission offers. (In other words, we need to make it clear that educators are generally cognizant of the superior service which FM brings to the listener -- that we honestly believe this superior performance offers important educational values -- and that we don't want any technical changes to be made in the present system of frequency-modulation transmission which would, in any way, impair either its tone quality or its noise-elimination characteristics!) (What we specifically and emphatically DO NOT WANT TO DO is to permit ourselves to be maneuvered into the position of having to defend the existing 200-kilocycle channel width on an engineering basis!)

Once we have established our position, as stated above, THEN, we shall have some of the frequency-modulation engineering specialists recalled to the stand for cross-examination, and LET THEM establish the fact that, in order to meet the conditions of tone fidelity and noise-elimination we have specified, a channel-width of 200 kilocycles is essential.

As to the types of evidence we might employ to substantiate our position on this point, we shall probably have to depend mainly on the type of proff characterized, on Page 5, as "considered opinions of accredited spokesmen for recognized groups, etc." Actually, there is a small amount of experimental evidence to support the hypothesis that the educational effectiveness of radio-listening DOES increase, proportionately, as the tone quality of the radio-reproduced (or phonographically-reproduced) program approaches the tonal accuracy which would be heard at the actual point of program origin. (This will be mentioned in the Office of Education testimony.) In addition, some of the experimental studies reported by Cantril and Allport comparing the effectiveness of different types of presentation present conclusions that admit of interpretations that might be used to support our position. Some of the educational witnesses may know of still other evidence of an objective nature that could be used also. It will probably be advisable for each of us to cover this point, even though our evidence is only "considered opinion", since, after all, opinions do seem to add up!

EXHIBITS AND DOCUMENTARY MATERIALS:

Certain types of exhibits have already been suggested in the preceding section of this memorandum. Other types will, no doubt, occur to each of the individual witnesses.

It goes without saying that State Department of Education witnesses should file photostat copies of any state maps they have showing station locations, station spacing, suggested frequency assignments, and the like. In addition, these witnesses would do well to bring with them the original maps or charts from which the photostat copies were made, and to use these original copies, at the time of their appearance, for purposes of reference. Other State Department of Education exhibits might include such materials as (1) sample schedules of programs showing the types of program service that are intended, (2) tabulations showing the extent to which radio is already used, (3) listings of programs that have already been produced by schools and colleges, either over school-or state-owned stations or over commercial stations. (4) graphs, spotmaps, tabulations, etc., showing distributions of local interest in developing educational FM program service, local interest in the use of radio programs of various types, or percentage of station time to be allocated to educational program services of different types.

Witnesses representing existing school system, college, of State Department of Education stations (either AM or FM stations) can, of course, submit copies of past program schedules, descriptions of program content and emphasis, explanations of the educational purposes of these programs, together with spot-maps, graphs, charts, or tabulations showing such facts as extent of program use, effectiveness of programs in accomplishing their intended purposes, specific listening audiences served, and the like.

In general, exhibits should be submitted, wherever possible, (1) to present facts or relationships that cannot readily visualized from verbal presentation alone, (2) to present facts of a statistical nature, (3) to document statements of an especially-strategic nature which are based on information sources not generally known, or not generally available, and (4) to provide a visual fixation point (for the attention of the audience and of the FCC Commissioners) to aid in the repeated recall of attention to a general point that constitutes the basic emphasis of a witness' testimony.

All exhibits submitted by each witness (or by the institution or organization he is representing), including maps, charts, tabulations, descriptive materials, and the like, should be labelled or titled to indicate who submitted them and/or who will use them in connection with his testimony and they should be numbered consecutively in the order in which reference will be made to them.

PLEASE NOTE, ESPECIALLY, THAT EXHIBITS MAY STILL BE SUBMITTED UP TO THE ACTUAL TIME OF APPEARANCE! This means that, if all copies of exhibits are submitted at the time of appearance, all 25 copies should be submitted together. Copies of exhibits that witnesses, themselves, will use for reference purposes at the time of their testifying, should be brought with them to the auditorium.

Finally, it will probably be advisable, if possible, for each witness to bring along with him, to the auditorim, three or four dozen mimeographed copies of his prepared testimony, for use in case they are needed. It is likely that members of the press will ask for copies of at least some of our presentations. There are some who claim that it is usually a good idea to provide the FCC Commissioners with copies of addresses. It is usually well, also, to have a few additional copies on hand for members of the audience who may particularly want them. However, the FCC makes no specific recommendation on this point. Certainly, some of the facts educational witnesses will be presenting have very definite "news value", and the publicity education can get by making copies of prepared testimony available "in the right quarters" may serve to make the public more distinctly aware of the fact that education is moving ahead!

A FINAL WORD ABOUT RELAY AND TELEVISION CHANNELS:

As the concept of educational FM station planning in terms of providing state-wide and region-wide service began to take shape, some of us in the field of education by radio expected that State Departments of Education would eventually construct beam relay transmitters to tie the school-owned stations together for network operation. However, as state plans began to mature, it has become less certain whether there will be any wide interest in this type of operation. Because of the present high cost of relay transmission facilities, some States, such as Michigan and Ohio, have given up the idea of linking their stations together with ultra-high-frequency FM relay transmitters. However, according to the latest reports received by this Office, the Connecticut State Department of Education was still planning to link all four of its stations together with relay transmitters, and the Maryland State Department of Education was planning relay-transmitter links for two of its stations.

In the absence of any clear mandate from the states, the Office of Education witnesses will re-affirm the belief that education should be guaranteed access to a sufficient number of relay frequencies to permit the eventual linking together of educational FM broadcast stations, should this be found desirable. It would be advisable for any of the other educational witnesses who have any definite opinions on this matter to cover this point in their testimony. (Perhaps Mr. Higgey, of Station WOSU, ought to cover this point in his testimony, in particular.)

It DOES APPEAR to be rather DEFINITE that S-T frequencies (i.e.-frequencies for use in connecting outlying production centers to the educational FM station transmitters by means of low-power relay transmitters) WILL BE NEEDED in every state where planning has progressed to the point where actual transmitter locations have already been determined. Hence, it will be advisable for educational witnesses to include, in their testimony, some mention, at least, of this need, such as affirming the belief the "education must be assured access to a sufficient number of S-T frequencies to permit the linking of each transmitter to up to 6 outlying program-production centers."

As for Commissioner Studebaker's request for "at least two television channels", frankly, I am at a loss as to how to advise educational witnesses. Several schools had expressed an interest in "going into television after the war", and, consequently, we assumed that our request to the FCC should protect education's interests on this point. However, the general impression of school people with whom we have had an opportunity to discuss this point seems to be that, unless the cost of television facilities can be very greatly reduced below what it is now, few school systems (if any) are likely to be able to afford to construct television stations. Moreover, very few schools systems have expressed themselves on this point, either one way or the other, in their contacts with this Office, and such interest as has been indicated goes little farther than speculation as to how television might serve education.

Consequently, in the absence of any definite mandate from public education, the Office of Education witnesses will simply re-affirm the belief that education should be assured access to channels for the operation of television broadcast stations, should it ever be found economically practicable for schools to undertake educational television broadcasting over their own non-commercial television stations.

Any of the educational witnesses who have definite convictions on this point, or who may happen to be in a position to judge whether or not schools are likely to be in a position to use television frequencies in the not-too-distant future, should cover this point in their testimony.

TIME AND PLACE OF THE HEARINGS:

The hearings are to be held in the Interdepartmental Auditorium, in Washington, D.C., which is located on the north side of Constitution Avenue, between 13th and 14th Streets, Northwest.

As shown on the enclosed FCC release, the hearings will begin on Thursday, September 28, at 10:30 AM, and are expected to continue through the entire month of October.

The appearances of witnesses for Non-Commercial Educational FM Broadcasting are scheduled for the week of October 10 to 17.

While it is impossible, now, to state the exact time we shall be called, it is not likely that we shall be called earlier than the afternoon of Wednesday, the 11th, nor later than Friday, the 13th. Considering that a total of 33 educational witnesses are scheduled to appear, it may require the better part of two days for our combined testimony.

Just as soon as we are able to learn the exact time we shall be called you will each receive further notice.

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EDUCATIONAL WITNESSES SCHEDULED TO APPEAR

John W. Studebaker, U.S. Office of Education

Dr. R. R. Lowdermilk, U.S. Office of Education-- Other Statewide Plans

Dr. Thomas G. Pullen, Jr. -- Maryland Statewide Plan

Mr. D. W. Zimmerman-- Maryland Statewide Plan

Mr. Kenneth C. Ray-- Ohio Statewide Plan

W. L. Sprouse--

Mr. Lawrence J. Tidrick-- Michigan Statewide Plan

Robert C. Deming-- Connecticut State-Wide Plan

Carl Menzer, State U. of Iowa, National Assn. of Educational Broadcasters

Harold McCarty, University of Wisconsin, Parents & Teachers Assn.

Howard L. Bevis, President, Ohio State University

Bruce Mahan, University of Iowa, University Extension Assn.

Robert C. Higgy, Ohio State University, Land-Grant College Assn.

Rev. Hunter Guthrie, Georgetown University, Jesuit Colleges

Belmont Farley, National Educational Assn.

William B. Levinson-- Cleveland Public Schools

S. D. Shankland, Am. Assn. of School Administrators

Donald DuShane--National Committee for Defense of Democracy through education

Clyde M. Huber, American Assn. of Teachers Colleges

W. C. Eels, American Assn. of Junior Colleges

Paul E. Elicker, National Assn. Secondary School Principals

Jane E. Monahan, Elementary School Principals

Leopold Stokowski

Josephy Maddy, University of Michigan

Dr. William H. Hartley, Md. State Teachers College, Nat'l Council for Social Studies

Harlow Shapley, Harvard

Lt. Col. Harold W. Kent, Association for Education by Radio

Wm. D. Boutwell, American Vocational Association

I. Keith Tyler, Ohio State University, Assn. for Education by Radio

Hilda Maehling, Classroom Teachers, NEA

Louis M. Bloch, Jr., Intercollegiate Broadcasting

George Abraham, Intercollegiate Broadcasting System

Scanned from the National Association of Educational Broadcasters Records
at the Wisconsin Historical Society as part of
"Unlocking the Airwaves: Revitalizing an Early Public and Educational Radio Collection."

A collaboration among the Maryland Institute for Technology in the Humanities,
University of Wisconsin-Madison Department of Communication Arts,
and Wisconsin Historical Society.

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